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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,851	12/21/2000	Chifei Wei Cheng	CISCP648	2199
26541	7590	05/24/2005	EXAMINER	
RITTER, LANG & KAPLAN P.O. BOX 2448 SARATOGA, CA 95070			PATEL, HARESH N	
			ART UNIT	PAPER NUMBER
			2154	
DATE MAILED: 05/24/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/745,851	CHENG, CHIFEI WEI	
	Examiner	Art Unit	
	Haresh Patel	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 1, 5, 6, 10, 11, 15, 16, 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are presented for examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

3. The amendment to the specification, paragraph beginning at page 14, line 23, dated 1/31/2005, has been acknowledged.

Claim Objections

4. Claims 1, 5, 6, 10, 11, 15, 16 and 20, is objected to because of the following informalities:

Claims 1, 6, 11 and 16, mention, "establish link message". It should be "establish link", as per the preamble ("reestablish a link") of claims, and the specification.

Claims 1, 6, 11 and 16, mention, "Q.921", "Q.922", "state 4" and "state 5". Applicant is requested to replace it with, "ITU Recommendation Q.921", "ITU Recommendation Q.922", "terminal equipment identifier (TEI) assigned state (state 4)", "awaiting establishment state (state 5)", respectively, as specified in the specification.

Claims 16, mentions, "Apparatus for", which should be "An apparatus for".

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Claims 5, 10, 15 and 20, mention, "DISC". Applicant is requested to replace it with "disconnect (DISC) ", as specified in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-4, 6-9, 11-14, 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 2, 6, 7, 11, 12, 16 and 17 recite the limitations, "the second device". There is insufficient antecedent basis for this limitation in the claim. Since, multiple second devices (i.e., a second device, and second device going down) exist in the claim it is not clear which second device is referred by theses limitations.

Claims 3, 8, 13 and 18 recite the limitations, "the data link establishment request". There is insufficient antecedent basis for this limitation in the claim.

Claims 4, 9, 14 and 19 recite the limitations, "the second device", "the request for connection to establish link message to the second device". There is insufficient antecedent basis for this limitation in the claim. Since, multiple second devices (i.e., a second device, and second device going down) exist in the claim it is not clear which second device is referred by theses limitations.

Claim Rejections - 35 USC § 103

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 6, 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayasi et al., 6,333,932, Fujitsu Limited (Hereinafter Kobayasi-Fujitsu) TBD1 in view of Xing, 5,553,135, and iDA Singapore, Issue 1, Rev 2, 1st December 1999, pages 1 and 14 (Hereafter iDA-Singapore).

8. As per claim 1, Kobayasi-Fujitsu clearly discloses a method (e.g., usage of a method between two stations, paragraph 57), for a first device (e.g., one station, paragraph 57) to reestablish a link (e.g., reestablishing a link, paragraph 4036) between the first device (e.g., one station, paragraph 57) and a second device (e.g., a second station, paragraph 57), comprising:

transmitting (e.g. paragraph 3) a disconnect request message (e.g., paragraph 4933) from the first device (e.g., one station, paragraph 57) in Q.922 state (e.g., paragraph 4917) to the second device (e.g., a second station, paragraph 57) in response to the link (e.g., paragraph 4931) between the first device (e.g., one station, paragraph 57) and second device (e.g., a second station, paragraph 57) going down (e.g., paragraph 1621),

starting (e.g., paragraph 3530) an awaiting response timer (e.g., paragraphs 1124, 1161, 1169, 1291, 1621, 3520) to start (e.g., paragraph 3530);

upon (e.g., paragraph 4037) any of expiration (e.g., paragraphs 1124, 1161, 1169, 1291, 1621, 3520, 4035, 4036) of the an awaiting-response timer (e.g., paragraphs 1124, 1161, 1169, 1291, 1621, 3520), receiving a disconnect mode message (e.g., paragraph 4933) from the second

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device (e.g., a second station, paragraph 57), or receiving an acknowledgement message (e.g., paragraph 4036) from the second device (e.g., a second station, paragraph 57),

transmitting (e.g., paragraph 3) a request (e.g., paragraph 4036) for connection to establish link (e.g., paragraph 4036) message (e.g., paragraph 4206) from the first device (e.g., one station, paragraph 57) to the second device (e.g., a second station, paragraph 57),

and transitioning (e.g., paragraph 3141) the first device (e.g., one station, paragraph 57) to Q.922 state (e.g., paragraph 4917).

However, Kobayasi-Fujitsu does not specifically mention about usage of state 4.

Xing discloses the well-known usage of state 4 (e.g., paragraphs 44 and 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayasi-Fujitsu with the teachings of Xing in order to facilitate usage of state 4 because the state 4 would help enhance requesting particular type of messages related to the state 4 from one device to another device.

However, Kobayasi-Fujitsu and Xing do not specifically mention about state 5 and Q.921.

iDA-Singapore discloses the well-known usage of state 5 (e.g., table 6, page 14) and Q.921 (e.g., table 6, page 14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayasi-Fujitsu and Xing with the teachings of iDA-Singapore in order to facilitate usage of state 5 and Q.921 because the state 5 would help enhance establishing a link between one device and another device. The establishment of the

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link between the two devices would enhance supporting for transfer of messages between the two devices using the link.

9. As per claim 6, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected under claim 1. Kobayasi-Fujitsu also discloses a computer program product (e.g., usage of a computer program product including two stations, paragraph 57), for a first device (e.g., one station, paragraph 57) to reestablish a link (e.g., reestablishing a link, paragraph 4036) between the first device (e.g., one station, paragraph 57) and a second device (e.g., a second station, paragraph 57), and a computer-readable medium for storing the codes (e.g., usage of memory, paragraph 4575).

10. As per claim 11, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected under claim 1. Kobayasi-Fujitsu also discloses a first device (e.g., one station, paragraph 57) that reestablishes a link (e.g., reestablishing a link, paragraph 4036) to a second device (e.g., a second station, paragraph 57), and a processor (e.g., paragraph 4575) a computer-readable storage medium that stores the software (e.g., usage of memory, paragraph 4575).

11. As per claim 16, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected under claim 1. Kobayasi-Fujitsu also discloses an apparatus (e.g., paragraph 57) for a first device (e.g., one station, paragraph 57) to reestablish a link (e.g.,

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reestablishing a link, paragraph 4036) between the first device (e.g., one station, paragraph 57) and a second device (e.g., a second station, paragraph 57).

12. Claims 2, 7, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayasi-Fujitsu, Xing and iDA-Singapore in view of Brown et al., 6,587,464, Nortel Networks Limited (Hereinafter Brown-Nortel).

13. As per claims 2, 7, 12, 17, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected under claims 1, 6, 11, 16.

However, Kobayasi-Fujitsu, Xing and iDA-Singapore do not specifically mention about a poll bit set to 0.

Brown-Nortel discloses the well-known usage of a poll bit set to 0 (e.g., col., 6, lines 40-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayasi-Fujitsu, Xing and iDA-Singapore with the teachings of Brown-Nortel in order to facilitate usage of a poll bit set to 0 because the setting of a poll bit to zero would help enhance establishing a link between one device and another device. The establishment of the link between the two devices would enhance supporting for transfer of messages between the two devices using the link.

14. Claims 3-5, 8-10, 13-15, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayasi-Fujitsu, Xing and iDA-Singapore in view of Mike Fontenot, April 20, 1998, MCI e-mail, page 1 (Hereinafter Mike-MCI).

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15. As per claims 3, 8, 13, 18, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected under claims 1, 6, 11, 16.

However, Kobayasi-Fujitsu, Xing and iDA-Singapore do not specifically mention about setting an awaiting-response-to-the-disconnect-message flag.

Mike-MCI discloses the well-known usage of setting an awaiting-response-to-the-disconnect-message flag (e.g., UA F = 1, page 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayasi-Fujitsu, Xing and iDA-Singapore with the teachings of Mike-MCI in order to facilitate usage of setting an awaiting-response-to-the-disconnect-message flag because the setting of a flag would help enhance establishing a link between one device and another device. The establishment of the link between the two devices would enhance supporting for transfer of messages between the two devices using the link.

16. As per claims 4, 9, 14, 19, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected claims 1, 3, 6, 8, 11, 13, 16 and 18.

Kobayasi-Fujitsu also discloses after transmitting (e.g. paragraph 3) the disconnect request message (e.g., paragraph 4933) to the second device (e.g., a second station, paragraph 57) and upon receiving an acknowledgement message (e.g., paragraph 4036) from the second device (e.g., a second station, paragraph 57), determining if the flag is set (e.g., paragraph 2463), wherein the first device (e.g., one station, paragraph 57) transmits (e.g. paragraph 3) the request for connection to establish link (e.g., paragraph 4036).

However, Kobayasi-Fujitsu, Xing and iDA-Singapore do not specifically mention about usage of an awaiting-response-to-the-disconnect-message flag.

Mike-MCI discloses the well-known usage of setting an awaiting-response-to-the-disconnect-message flag (e.g., UA F = 1, page 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayasi-Fujitsu, Xing and iDA-Singapore with the teachings of Mike-MCI in order to facilitate usage of an awaiting-response-to-the-disconnect-message flag because the awaiting-response-to-the-disconnect-message flag would help enhance establishing a link between one device and another device. The establishment of the link between the two devices would enhance supporting for transfer of messages between the two devices using the link.

17. As per claims 5, 10, 15 and 20, Kobayasi-Fujitsu, Xing and iDA-Singapore disclose the claimed limitations as rejected under claims 1, 6, 11, 16.

However, Kobayasi-Fujitsu, Xing and iDA-Singapore do not specifically mention about a DISC message.

Mike-MCI discloses the well-known usage of DISC message (e.g., usage of DISC, page 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kobayasi-Fujitsu, Xing and iDA-Singapore with the teachings of Mike-MCI in order to facilitate usage of DISC message because the specific message would help enhance establishing a link between one device and another device. The

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establishment of the link between the two devices would enhance supporting for transfer of messages between the two devices using the link.

Conclusion

18. The prior art made of record (forms PTO-892 and applicant provided IDS cited arts) and not relied upon is considered pertinent to applicant's disclosure. ITU Recommendation Q.922, "ISDN Data Link Layer Specification for Frame Mode Bearer Services", 1992, discloses different states of Q.922.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Haresh Patel

May 14, 2005


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
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